

Work Order ID 148659

Wednesday, July 06, 2016 8:38:48 AM

148659

Page 1

Item ID: D5408-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Suspension Rope
 Start Date: 7/18/2016 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 7/18/2016 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21** Date: **JUL 08 2016** Tooling: Date: Run Start ***NR1***
 QC: **9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5408	A								

100 PURCHASING 0.00 **DAS 13 9-89**

100

Purchasing

Purchasing

Memo

Issue P/O: **32990**

Possible Supplier: McMaster Carr
 Description: Suspension Rope
 Supplier P/N: 3132T2
 order in lengths of 40'

C OF C is required

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.00

6x 5016-7-18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

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[illegible]

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Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
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Work Order ID 148659

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148659

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Item ID: D5408-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Suspension Rope

Start Date: 7/18/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 7/18/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>STS 18</u>	0.00							DAS 9-89
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							DAS 21 9-89 JUL 22 2016
Quality Control									

DAS
21
9-89 JUL 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
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Picklist Print

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Work Order ID: 148659

148659

Parent Item: D5408-1

D5408-1

Parent Item Name: Suspension Rope

Start Date: 7/18/2016

Required Date: 7/18/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A 16.03.28 AS PER DWG REV.A DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
3132T2		Purchased		No			f	0.0000					
3132T2									**				
Suspension Rope (40ft lenght)													

86
Lex 8/16-7-18.

DQA: _____ Date: _____



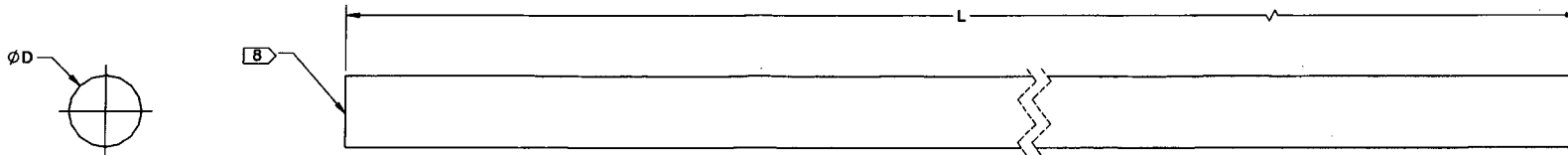
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER :							

SPECIFICATION CONTROL DRAWING



D5408-X SUSPENSION ROPE

DART P/N	DESCRIPTION	VENDOR	VENDOR P/N	DIAMETER "D"	LENGTH "L"	MATERIAL	TENSILE STRENGTH	SAFETY FACTOR	COLOUR
D5408-1	SUSPENSION ROPE	MCMaster CARR	3132T2	0.16"	30 ft	POLYESTER	80 lb	12:1	BLACK WITH REFLECTIVE STRANDS

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. *148659 MLJ*
16-07-08

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.6
- 7) WEIGHT: N/A
- 8) ENSURE ENDS OF ROPE ARE MELTED TO AVOID FRAYING

RELEASED
2016-03-23
ECN 16-548

APPROVED

A	NEW ISSUE	VS	16.03.08
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	JLM	D5408	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	SUSPENSION ROPE	NTS
DATE	16.03.08	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32990**

Purchase Order Date 7/11/2016

PO Print Date 7/11/2016

Page Number 2 of 4

Order From :

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

330 995 5500

Ship To Contact

Ship To Phone

Ship Via:

Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

Line Total:

\$8.60

4

3132T2

Suspension Rope (40ft
length)

7/13/2016 FN

6.00

\$34.80

\$208.80

Yes

7/13/2016

Each

AS PER DWG D5408 REV. A
B148659
6 PCS OF 40 FT

Sp/6-718

Line Total:

\$208.80

5

71400-45

5346K18 HOSE FITTING

7/13/2016

2.00

\$12.34

\$24.68

Yes

7/13/2016

Each

Line Total:

\$24.68

Deliver To: LUC

6

72000-45

1372N35 RUBBER STRIP

7/13/2016

5.00

\$11.37

\$56.85

Yes

7/13/2016

Each

Note:

7/11/2016



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO32990

Order Placed By
Chantal Lavoie

McMaster-Carr Number
5704629-02

Page 1 of 1

07/11/2016

Line	Product	Ordered	Shipped
1	9610K17 MIL Spec. Two-Piece Grommet Kit, Trade Size 1, 0.687" OD, 48 Grommets with Teeth Washers	4 Each	4 ✓
2	92311A564 18-8 Stainless Steel Cup Point Set Screw, 1/4"-28 Thread, 1" Long, Packs of 50	1 Pack	1 ✓
3	95606A170 Nylon Flat Washer, 7/16" Screw Size, 0.500" ID, 0.688" OD, Off-White, Packs of 100	1 Pack	1 ✓
4	3132T2 Rope with Hook - Not for Lifting, Polyester Cover, 5/32" Diameter, 40' LG.	240 Feet	120 ✓
5	5346K18 Brass Barbed Hose Fitting, Adapter for 3/8" Hose ID X 1/4" NPTF Male Pipe, Packs of 10	2 Packs	2 ✓
6	6534K72 Industrial-Shape Hose Coupling, Plug, Zinc-Plated, 3/8" NPTF Male, 3/8 Coupling Size	6 Each	6 ✓
7	42955A27 Single Cut Carbide Bur with 1/8" Shank Diameter, Tree-Radius End, 1/8" Head Diameter, 1/2" Cut LG.	5 Each	5 ✓
8	94675A019 3/8"-16 Pneumatic Nut Insert/Rivet Nut Tool	1 Each	1 ✓
9	14025A28 Magnet-Mount Hook, Single-Prong with 1-1/8" Projection, 2-1/4" High	2 Each	2 ✓

Shipped separately from our Chicago warehouse on 07/11

4 3132T2 Rope with Hook - Not for Lifting, Polyester Cover, 5/32" Diameter, 40' LG.

240 Feet

120

Notes about your shipment

The U.S. Department of Transportation regulates the shipping of line 9. By purchasing from McMaster-Carr Supply Company, you agree not to transport or permit others to transport purchased items except in accordance with U.S. law and any other applicable laws.



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO32990

Order Placed By
Chantal Lavoie

McMaster-Carr Number
5704629-01

Page 1 of 1

07/11/2016

Line	Product	Ordered	Shipped
4	3132T2 Rope with Hook - Not for Lifting, Polyester Cover, 5/32" Diameter, 40' LG.	240 Feet	120

SP16-7-18

Shipped separately from our Cleveland warehouse on 07/11

1	9610K17 MIL Spec. Two-Piece Grommet Kit, Trade Size 1, 0.687" OD, 48 Grommets with Teeth Washers	4 Each	4
2	92311A564 18-8 Stainless Steel Cup Point Set Screw, 1/4"-28 Thread, 1" Long	1 Pack	1
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